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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/824,436

04/15/2004

Sung-Su Jung

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08/17/2005

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 08/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/824,436

Applicant(s)

JUNG ET AL.

Examiner

Tarifur R. Chowdhury

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/17/05; 03/08/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

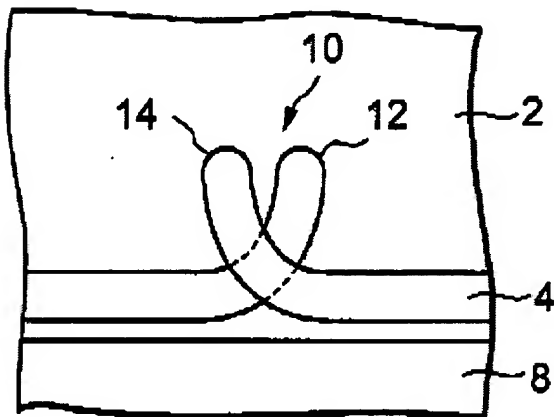
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 2-6 and 9-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshizoe, US 2003/0025867.**
5. Yoshizoe discloses and shows in Fig. 4, a seal pattern structure for a liquid crystal display panel, comprising:
  - a substrate (2) having at least one image display part (8);
  - a start pattern (12) formed from a point spaced apart from the image display part to a point adjacent to an outer edge of the image display part;
  - a main pattern (4) connected to the start pattern and encompassing the outer edge of the image display part; and

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- an end pattern (14) connected to the main pattern and formed from the outer edge of the image display part to a point spaced apart from the image display part, wherein a connection part between the start pattern and the main pattern and a connection part between the main pattern and the end pattern cross each other.

**FIG.4**

Yoshizoe also discloses and shows in Fig. 4 that the start pattern (12) and the end pattern (14) overlap each other and are spaced apart from the display region (8) and that the seal pattern is formed on a first substrate, the liquid crystal material is dispensed inside the closed loop formed by the seal pattern and then a second substrate is adhered to the sealant. Further, a method of forming the seal pattern on a substrate for a liquid crystal display panel merely discloses the step of forming each

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element and since each element must be formed to make the device, the method would have been inherent to the device.

Yoshizoe further shows in Fig. 4 that the start pattern, the main pattern and the end pattern are connected in round form and that the start pattern and the end pattern are formed to be substantially parallel and symmetric with each other and that a distance between the start pattern and the end pattern gradually increases with the distance from the connection part.

Accordingly, claims 1, 3-5, 9-13 and 15-20 are anticipated.

As to claims 2 and 6, Yoshizoe further discloses (page 3, paragraph 0036, 0038) that the seal pattern may be applied to either one of the two substrates having components such as electrodes and color filters and that the invention may be applied to a case where a plurality of display devices are formed on the same substrate.

As to claim 14, Yoshizoe also discloses that when the second substrate is adhered to the seal pattern it causes the adjacent ends of the start pattern (12) and end pattern (14) to melt into one another (page 3, paragraph 0034).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizoe.**

9. Yoshizoe does not explicitly disclose that the seal pattern is formed of UV-hardening resin or a mixture of UV hardening resin and thermosetting resin. However, the use of UV-hardening resin or a mixture of UV-hardening resin and thermosetting resin to form seal pattern is common and known in the art and thus would have been obvious for several reasons such as to improve reliability.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) USPAT 6,707,250 discloses the use of UV-hardening resin or a mixture of UV hardening resin and thermosetting resin to form a seal pattern.

b) USPAT 5,893,625 discloses a method for manufacturing a liquid crystal display device in which the injection area is defined by a seal pattern comprising sealing material.

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c) USPAT 4,640,583 discloses a display panel having an inner and outer seal and process for the production thereof.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R. Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC  
August 09, 2005

  
TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER